REMARKS

The application has been amended to place the application of condition for allowance at the time of the next Official Action.

Claims 1, 3-9 and 11-15 were previously pending in the application. Claims 3 and 11 are cancelled leaving claims 1, 4-9 and 12-15 for consideration.

Claims 6-8 are amended to address the claim objections noted in the Official Action to clarify that the projecting portions acts as a light shield in claim 6 and to clarify that electrostatic capacitance is formed between the wiring and the projecting portion of the scanning line in claim 8.

As to the objection to claim 6 for including the terms "at least one of" and "and" which appear confusing, the phrase "at least one of a and b" is standard phraseology to include "a" and "b" as well as "a" or "b". Accordingly, claim 6 provides that the projecting portion overlaps either the contact hole or disclination region or both the contact hole and the disclination region.

Therefore, further amendment to claim 6 is not needed and the above-noted changes are believed to address the claim objections noted in the Official Action.

Claims 1, 4, 5 and 12 are rejected as unpatentable over SHIMADA et al. 6,147,722 in view of INO 5,317,432. This rejection is respectfully traversed.

Claim 1 is amended to include the subject matter of claim 3. Since the proposed combination of references has not applied against claim 3, the rejection over SHIMADA et al. in view of INO is believed moot.

Claims 3, 9 and 11 are rejected as unpatentable over SHIMADA et al. in view of INO and further in view of NAGATA et al. 6,118,505. This rejection is respectfully traversed.

The subject matter of claim 3 is included in claim 1 and provides that the insulating films (which are formed on the wiring layer) include a passivation film formed on the switching element, a color layer formed on the passivation film, and a flattening film formed on the passivation film and color layer.

As noted in the Official Action, SHIMADA et al. do not teach that the insulating films include a passivation film, a color layer and a flattening film. The Official Action offers INO for teaching a multi-layer insulating structure. However, the insulating structure of INO is neither on a wiring layer as required, nor does the insulating structure of INO include a passivation film, a color layer formed on the passivation film and a flattening film formed on the passivation film and color layer.

The reference to NAGATA et al. is offered for the teaching of a color organic insulating film 31 and an overcoat film 32 formed on the color organic film 31 as shown in Figure 5B. However, NAGATA et al. fail to teach a passivation film

formed on a switching element, the color layer formed on the passivation film and the flattening film formed on the passivation film and color layer as recited. Specifically, NAGATA et al. teach a color layer and an overcoat film (indicated in the Official Action as a flattening film) but does not teach a passivation film.

The above-noted feature is missing from each of the references, is absent from the combination, and thus is not obvious to one having ordinary skill in the art.

The subject matter of claim 11 is combined with claim 9 and also provides that the insulating layer includes a passivation film formed on the switching element, a color layer formed on the passivation film and a flattening film formed on the passivation film and color layer. The analysis above regarding claim 3 is equally applicable to claim 11.

Claims 6-8 are rejected as unpatentable over SHIMADA et al. in view of INO and further in view of OTA et al. 5,831,707. This rejection is respectfully traversed.

Claim 6 provides that the scanning line has a projecting portion that overlaps at least one of the contact hole and the region where disclination occurs.

Column 22, lines 29-33 of OTA are offered as teaching a projection portion of a scan line. The noted lines of column 22 do not specifically provide that pixel electrode 104 projects from the scan line. Rather, it appears that column 22, lines 2-4

teach projections 105 which extend from the scan electrode 102 in a vertical direction as shown in Figure 37(a).

However, Figure 37(a) of OTA et al. does not show an overlap of the scanning line projection with at least one of the contact hole and the region where disclination occurs. In addition, Figure 37(a) of OTA et al. does not show a contact hole.

Figure 2 of OTA et al. appears to show a contact hole that is more clearly seen in Figure 3 of OTA et al. However, as seen in Figures 2 and 3 of OTA et al., projecting portion 105 overlaps neither the contact hole nor a region where disclination occurs. Accordingly, the proposed combination of references does not teach all of the limitations of claim 6 and thus claim 6 would not be obvious in view of the proposed combination of references.

Claim 7 provides that a black matrix has a first portion that is wider than other portions of the black matrix and that overlaps a region in the pixel between the data line and the projecting portion of the scan line.

As noted in the Official Action, SHIMADA et al. do not teach or suggest this feature. INO is not offered for teaching this feature. Rather, column 3, lines 48-51 of INO teach away from using a black matrix. OTA et al. is offered for the teaching of a black matrix. However, as seen in Figure 2 of OTA et al., black matrix 202 (indicated by the dashed line) is

substantially uniform. OTA et al. do not teach a black matrix that has a first portion that is wider than other portions of the black matrix and that overlaps a region in the pixel between the data line and the projecting portion of the scanning line as recited. As noted above, neither SHIMADA et al. nor INO teach or suggest this feature.

Accordingly, the above-noted feature is missing from each of the references, is absent from the combination and thus is not obvious to one having ordinary skill in the art.

Claim 8 provides that the projecting portion (of the scan line) overlaps the wiring so as to form an electrostatic capacitance between the wiring and the projecting portion.

The position set forth in the Official Action is that the projecting portion of the scan line of OTA et al. forms an electrostatic capacitance. This position is believed untenable for at least the following reasons.

First, the projecting portion projects from the scan line. As such, the projecting portion is part of the scan line and an element cannot form a capacitance with itself.

Second, in order to form a capacitance, one or more conductive elements must be separated from each other by an insulative element. As set forth above, elements 102 (scanning line) and 105 (projecting portion of the scanning line) are connected to each other and are not separated from each other by

an insulative element and thus would not form an electrostatic capacitance therebetween.

As the references do not disclose or suggest that which is recited, claims 6-8 are believed patentable regardless of the patentability of the claims from which they depend.

Claim 13 is rejected as unpatentable over SHIMADA et al. in view of OTA et al. This rejection is respectfully traversed.

Claim 13 is amended and provides that a black matrix has a first portion that is wider than other portions of the black matrix and that overlaps a region in the pixel between the data line and a portion of the scanning line that projects into the pixel.

The Official Action indicates that SHIMADA et al. do not teach or suggest these features. OTA et al. is offered for teaching a black matrix formed at an interval between pixel electrodes and projection portion of the scan line (column 22, lines 29-33).

However, the above-noted passage of OTA et al. does not teach that for which it is offered, and, in any event, OTA et al. do not teach that which is recited.

The above-noted passage of OTA et al. provides "in order to improve the contrast ratio, an insulating black matrix is formed at unnecessary intervals (other than the interval between the pixel electrode 104 and the projection portion 105)."

Accordingly, the black matrix is formed at areas other than the area between the pixel electrode 104 and the projection portion 105.

As seen in Figure 2 of OTA, for example, the interval between pixel electrodes 104 and the projection portion 105 is the central portion of Figure 2. As seen in the Figure 1 of OTA et al., this central portion is defined by the leftmost pixel electrode 104 and the rightmost pixel electrode 104 with two projection portions 105 therebetween and an additional pixel electrode 104 therebetween. The area outside this area is the unnecessary interval that is covered by the black matrix. This is further seen in Figure 1 wherein the black matrix 202 is at the far right and far left of color filter 203.

Thus, as seen in Figure 2, the black matrix 202 is defined by the dashed lines in OTA et al. As further seen in Figure 2, the black matrix 202 of OTA et al. is substantially uniform and does not have a first portion that is wider than other portions of the black matrix as recited.

Accordingly, contrary to what is indicated in the Official Action, the black matrix is formed at intervals other than intervals between the pixel electrode and a projection portion of the scan line, not at the interval between a pixel electrode and a projection portion of the scan line. Nevertheless, OTA et al. do not teach that the black matrix has a

first portion that is wider than other portions of the black matrix as recited.

As set forth above, SHIMADA et al. do not teach or suggest this feature. Accordingly, the proposed combination of references would not render obvious claim 13.

Claim 14 is rejected as unpatentable over SHIMADA et al. in view of OTA et al. and further in view of INO. This rejection is respectfully traversed.

INO is only cited for the teaching of a plurality of laminated insulating films. INO does not teach or suggest that a black matrix has a first portion that is wider than other portions of the black matrix and that overlaps a region in the pixel between the data line and a portion of the scanning line that projects into the pixel as recited in claim 13. As set forth above, SHIMADA et al. in view of OTA et al. do not teach or suggest what is recited in claim 13. Since claim 14 depends from claim 13 and further defines the invention, the proposed combination of references would not render obvious claim 14.

Claim 15 is rejected as unpatentable over SHIMADA et al. in view of OTA et al. and INO and further in view of NAGATA et al. This rejection is respectfully traversed.

NAGATA et al. is only cited for the teaching of an overcoat film formed on an organic film. However, claim 15 provides that a color layer is formed on a passivation film and a flattening film is formed on the passivation film and color

layer. Accordingly, there are three different films. NAGATA et al. only teach a color film and an overcoat film, not the three different films that are recited.

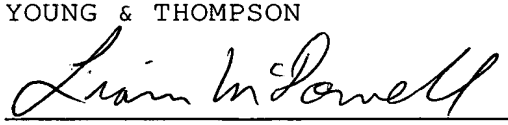
In addition, NAGATA et al. do not teach or suggest that a black matrix has a first portion that is wider than other portions of the black matrix as recited in claim 13. As set forth above, SHIMADA et al. in view of OTA et al. and INO do not teach or suggest what is recited in claim 13. Since claim 15 ultimately depends from claim 13 and further defines the invention, the proposed combination of references would not render obvious claim 15.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R.§1.17.

Respectfully submitted,

YOUNG & THOMPSON



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